STATE OF VERMONT
PUBLIC SERVICE BOARD

Order entered: 8/2/2006

ORDER RE: ENERGY EFFICIENCY UTILITY BUDGET FOR CALENDAR YEARS 2006, 2007, AND 2008

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I. INTRODUCTION

In this Order we establish the Energy Efficiency Utility ("EEU") budgets for 2006, 2007 and 2008 and announce a subsequent process to develop a means of financing energy efficiency services to reduce the impact of the Energy Efficiency Charge ("EEC") on electricity rates in the near term. This Order is the outcome of a comprehensive, ten-month-long workshop process that followed Legislative action removing the former cap of $17.5 million on the annual EEU budget and requiring the Board to set a new level based on objectives and criteria in the law. In this Order we raise the 2006 funding level to $19.5 million, and establish funding levels of $24 million and $30.75 million for 2007 and 2008, respectively. We also conclude that higher funding levels may be appropriate, if the effect of those levels on electricity rates in the near term can be reduced.

The workshop process leading to today's Order sought input on what level of funding would realize all reasonably-available, cost-effective energy efficiency and on how to balance the objectives for the EEU set out in 30 V.S.A § 209. A study commissioned by the Vermont Department of Public Service ("DPS" or "Department")[1] concluded that increasing the average annual EEU budget to approximately $35.8 million (in 2006 dollars) would capture all reasonably-available, cost-effective energy efficiency over the next ten years. Noting that approximately $7.5 million of this average annual amount was associated with fuel switching from electricity to fossil fuels, the benefits of which are less certain because fossil fuel prices have increased, the Department recommended increasing the EEU budget to $18.0 million in 2006, $22.2 million in 2007, and $26.4 million in 2008.[2]

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1. Vermont Electric Energy Efficiency Potential Study, prepared for the Vermont Department of Public Service by GDS Associates, Inc., dated July 21, 2006.

2. The study shows annual budget amounts increasing from $32.4 million in 2006 to $39.6 million in 2015 (in 2006 dollars) and portions associated with fuel switching increasing from $7.3 million in 2006 to $7.8 million in 2015 (in 2006 dollars). The DPS's recommendation for 2008 is equal to the study's annual budget amount for that year less the portion associated with fuel switching for that year.

Two participants[3] challenged the Department's original study as too conservative in its estimates primarily because it assumed a level of incentive payment to participants lower than the level that would achieve all reasonably-available, cost-effective efficiency. These and other participants[4] advocated funding levels by 2008 of double to triple the current level.[5]

A group of businesses and business organizations[6] opposed significant increases in the EEU budget. Their concern focused primarily on the absolute dollars the increase would add to their EEU obligation in addition to what they indicate are already high electric rates. Members of this group argued that the additive effects of Vermont's high electricity costs, rate increases by several Vermont utilities, and the EEC, along with high taxes, threaten economic harm to the state by impairing these businesses' ability to compete in the global market, thus threatening Vermonters with potential job losses. The comments of Rock-Tenn Missisquoi Mill illustrate the concern:

> The Energy Surcharge alone already costs the Missisquoi Mill well over $100,000/year. . . . If this Energy Efficiency Charge is doubled or tripled, it could threaten the livelihood of the Mill's 150 employees as well as many support type jobs in Franklin County that find work at the Mill.

Commenters in this vein advocated no increase in the budget, or at most, a cost of living increase.

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3. These participants were Conservation Law Foundation ("CLF") and the Vermont Public Interest Research Group ("VPIRG").

4. In addition to CLF and VPIRG, these participants included: the City of Burlington Electric Department; Glebe Mountain Group; Vermont Businesses for Social Responsibility; Rep. Gaye Symington, Speaker of the House; Sen. Peter Welch, President Pro Tem; Rep. Robert Dostis, Chair, House Natural Resources Committee; Rep. Kathleen Keenan, Chair, House Commerce Committee; Sen. Ann Cummings, Chair, Senate Finance Committee; and Sen. Virginia Lyons, Chair, Senate Natural Resources and Energy Committee.

5. On June 27, 2006, CLF responded to the DPS's June 26 filing, arguing that the correction supported CLF's original position that the DPS's achievable potential study understates the available cost-effective efficiency, and that the Board should significantly increase the EEU budget.

6. These participants included: Franklin County Industrial Development Corporation; Associated Industries of Vermont; Ethan Allen Institute; Greater Burlington Industrial Corporation; Home Builders and Remodelers Association of Vermont; International Business Machines, Inc.; Lake Champlain Regional Chamber of Commerce; Vermont Business Roundtable; Vermont Chamber of Commerce; Vermont Energy Partnership; Vermont Grocers' Association; Vermont Hospitality Council; Vermont Retail Association; Vermont Ski Areas Association.

In this Order we conclude that the current budget of $17.5 million is insufficient to acquire all reasonably-available, cost-effective energy efficiency. The new budget levels that we set today will enable the EEU to work in the short-range toward minimizing lost savings opportunities while still providing training to contractors, business customers and partners that is necessary for long-term market transformation.[7]

Investment in cost-effective energy efficiency results in total electric costs to Vermont that are lower than they would be without efficiency by providing savings to consumers who install efficiency measures as well as savings to all ratepayers through reduced need for power purchases by utilities, deferred need for system upgrades such as transmission lines, and other statewide savings. From the EEU's inception in 2000 through 2005, Vermonters have paid approximately $77 million via the EEC, and the EEU has saved Vermonters over $220 million (in 2003 dollars) in total benefits.[8]

However, through the existing EEU funding mechanism, increased spending on efficiency also raises rates at a time when 12 electric utilities have filed for rate increases ranging from 6.15 to 22.86 percent.[9] The EEC, although small in relation to total electric charges — currently 2.82 percent of total Vermont payments for electricity[10] — is additive in relation to

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7. Training provides specialized technical knowledge regarding various aspects of energy efficiency measures, including such things as the operation of building energy management systems, evaluation of a building's energy performance, and implementation of new energy efficient technologies.

8. From 2000 through 2002, customers of the City of Burlington Electric Department ("BED") did not pay an EEC (BED funded its energy efficiency programs via the proceeds of a bond issuance). Therefore, the costs of BED's delivery of EEU programs in its service territory, and the savings resulting from those programs, during the 2000-2002 time period are not included in the above figures.

9. Recent Vermont electric utility rate increase requests include: City of Burlington Electric Department 22.86%; Village of Jacksonville Electric Company 18.62%; Village of Lyndonville Electric Department 17.68%; Village of Johnson Water and Light Department 16.5%; Vermont Electric Cooperative, Inc. 14.35%; Village of Ludlow Electric Department 14.05%; Green Mountain Power Corporation 11.95%; Town of Hardwick Electric Department 9.0%; Town of Stowe Electric Department 9.0%; Village of Northfield Electric Department 6.76%; Village of Morrisville Water and Light Department 6.57%; and Central Vermont Public Service Corporation 6.15%.

10. Current collections via the EEC are 2.82 percent of Vermont customers' total payments for electric services. Current EEC collections (including taxes and uncollectibles related to the EEC) are $18,371,999. Vermont customers' total payments for electric services are $632,523,895, which represents total utility retail revenues as shown on utility 2005 FERC Form Ones and annual reports, less the Vermont Marble Power Division of OMYA's deliveries to itself. 18,371,999/(18,371,999 + 632,523,895) = 2.82%

overall rates. Today's decision establishing new EEU budget levels is likely to increase rates (above what they would be at the capped EEU budget levels) less than 0.2 percent in 2006, approximately 0.5 percent in 2007, and approximately 1.2 percent in 2008.[11] Nevertheless, the impact of increasing the charge will be most felt at both ends of the spectrum, by large industrial and commercial users, and by low and middle-income Vermonters who are struggling with increasing energy costs.

Our concern regarding the impact of electricity rates on the welfare of the state and its people contributed to our decision to phase in the EEU budget increase to the level at which it can acquire all reasonably-available, cost-effective energy efficiency. The levels we have set represent an aggressive goal given the current conditions of the state and global economy, and the pressures these conditions exert on businesses and individuals.

This Order implements legislation enacted in 2005 removing the previous funding cap and requiring the Board to set the EEU budget at a level that would "realize all reasonably-available, cost-effective energy efficiency." Among the criteria the Board must consider in setting the budget level is the impact of efficiency programs on electric rates. Further changes to the law in 2006 established new priority objectives for the Board to consider, including: reducing the size of future power purchases; reducing greenhouse gases; limiting the need for transmission and distribution upgrades; and minimizing the cost of electricity.

Balancing all factors, we set the EEU budget and simultaneously announce that we will reconsider in 15 months, or sooner, the established funding level for 2008. During that period, the Board will conduct a process to determine the range and feasibility of various ways to finance energy efficiency, through means such as bonding or securitization, to mitigate the short-term

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11. The rate and bill impacts of the budget levels we approve today were not specifically analyzed in the workshop process; however, the approved new budget levels do fall within the range of options that were analyzed. Our conclusion regarding the approximate short-term rate impacts of the new budget levels is based upon the results of the analyses that were performed.

rate impacts of investing in energy efficiency.[12] Legislative action may be needed at the conclusion of this process to obtain financing authority.[13]

In announcing our intention to consider long-term financing for energy efficiency, we note that state policy supports the treatment of efficiency comparably to supply resources, such as generation and transmission, in regional and federal policy.[14] The initial capital costs of supply resources are typically paid for by issuing equity or bonds, which are paid off over time. In contrast, the current practice for energy efficiency is to expense the entire investment in the year it is incurred, even though the energy savings extend for many years.[15] Creating a means to finance energy efficiency would result in comparable treatment of efficiency and supply-side costs by amortizing rather than expensing efficiency investments.

We also note that intergenerational equity[16] supports financing energy efficiency. When energy efficiency investments are expensed, current ratepayers pay for some benefits that are received by future ratepayers. Financing better matches the timing of the payments for the energy efficiency to the savings from those investments, so that current and future ratepayers share both the costs and the benefits.

There remain three issues related to the EEU that we will address in future orders. The three issues include: targeting of efficiency investment to specific customer classes, activities, or areas of the state; the establishment of a waiver mechanism to permit customers who meet

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12. As explained further below, financing energy efficiency could result in rate decreases in the near term through reductions in the EEC.

13. We have deliberately phased in the increase to the EEU budget in a manner that the largest increase will occur in 2008 in the hope that, if legislative authorization is needed, this will give the Legislature ample time to provide financing authority to an appropriate entity, thereby allowing the rate impact of this increase to be mitigated.

14. *See*, Section 8 of P.A. No. 61 (2005 Vt., Bien. Sess.) ("Act 61").

15. The average life of efficiency measures installed by Efficiency Vermont has ranged from 12 to 15 years.

16. Intergenerational equity is a long-standing ratemaking doctrine which refers to the matching of the timing of ratepayers' payments for utility services with the benefits from those services. To achieve this, the doctrine can require spreading the costs of a utility investment across different "generations" of ratepayers. For example, many types of utility plant provide service to ratepayers for decades. It would be inequitable for the ratepayers at the time the plant was built to pay for the entire cost of that plant. Instead, all ratepayers who receive the benefit of that plant throughout the decades should share in paying for the plant.

criteria established in the statute to avoid the energy efficiency charge; and the possible establishment of a combined heat and power program that is funded via the EEC. Changes to the law enacted in 2005 require the Board to address the first two of these issues, and authorize the Board to consider the third.

II. PROCEDURAL HISTORY

Act 61 became law in July 2005. This legislation includes three provisions that relate to energy efficiency.

- It removed the previous statutory cap on the EEU budget of $17.5 million, and established new criteria for the Board to consider when determining the EEU budget.
- It required the Board to develop a mechanism under which customers could apply for an exemption from paying some or all of the EEC.
- It authorized the Board to consider developing a combined heat and power program that could be funded via the EEC.

The first of these statutory provisions is the subject of this Order; the other two will be addressed in future Board orders.

With respect to determining the EEU budget, Act 61 requires the Board to:

- set the EEU budget in an amount that is consistent with the principles of least-cost integrated resource planning as defined in 30 V.S.A. § 218c;
- review the EEU budget for unrealized energy efficiency potential, and adjust the budget in order to realize all reasonably-available, cost-effective energy efficiency savings;
- balance the following objectives when setting the EEU budget:
  - providing efficiency and conservation as part of a comprehensive resource supply strategy;
  - providing the opportunity for all Vermonters to participate in efficiency and conservation programs;
  - the value of targeting efficiency and conservation efforts to locations, markets or customers where they may provide the greatest value;
- consider the impact on retail electric rates of energy efficiency programs delivered by the EEU.

In August 2005, the Board began an extensive process to implement the various provisions of Act 61. This ten-month process included several workshops, submission of new studies and other analyses by various participants, and many opportunities for participants and members of the public to file written comments.[17]

Because this process was not a formal docket, there were no parties and no deadlines for intervention. Rather, anyone who wished could at any time start to participate in the proceedings. In this Order, we use the term "participants" to refer to all those who filed formal written comments or who asked to be included on the Board's e-mail service list for this process, regardless of the extent to which they actually attended the workshops. This e-mail service list is attached as Appendix A.

As part of this workshop process, many participants collaboratively developed five budget scenarios with associated "policy guidance."[18] The EEU then developed estimates of the energy savings it could achieve under each of those scenarios, based on the type of services it would be likely to offer. The participants agreed that the budget scenarios, and the related analyses, were intended to be illustrative and to provide the Board with information regarding the effects of different budget scenarios and associated policy guidance. Some of the scenarios were expressly described as "bounding" scenarios in that they were designed to illustrate the outer

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17. This process was not conducted as a contested-case proceeding. A contested case, pursuant to the Vermont Administrative Procedures Act, is one "in which the legal rights, duties, or privileges of a party are required by law to be determined by an agency *after an opportunity for hearing*." 3 V.S.A. § 801(b)(3)(emphasis added). By statute the Board is to determine an appropriate EEU budget amount "by rule or order," with no requirement that there be an opportunity for hearing. 30 V.S.A. § 209(d)(4).

18. As used during the workshop process and in this Order, the term "policy guidance" refers to the guidance given by the Board to the EEU regarding how to balance equity considerations such as service to customers who are harder or more costly to serve (such as customers in certain geographic areas, low-income customers and some small businesses) with the targeting of EEU resources toward certain customer classes, geographic areas, or the most cost-effective savings.

bounds of the possible options.[19] The scenarios and the resulting annualized first-year cumulative MWh savings[20] are summarized in the following table.

Scenario Number	EEU Budget	Associated Policies	MWh Savings
One	$18 million in 2006 $20.9 million in 2007 $23.7 million in 2008	Maintain current policy guidance for all spending	257,797
Two	$20.1 million in 2006 $26.5 million in 2007 $35.4 million in 2008	Maintain current policy guidance for all spending	335,405
Three	$17.5 million in 2006 $17.5 million in 2007 $17.5 million in 2008	Remove current policy guidance for all spending	259,000
Four	$37.4 million in 2006 $78.9 million in 2007 $106.3 million in 2008	This is all cost-effective investment possible over the three-year period; there are no policy constraints	501,050
Five	$20.1 million in 2006 $31.5 million in 2007 $52.5 million in 2008	Maintain current policy guidance for 2/3 of spending, remaining 1/3 would be unconstrained by equity considerations	390,652

The second analysis performed as part of the workshop process was the DPS's study of the achievable electric energy efficiency potential in Vermont over the next 10 years. This study was filed with the Board on May 10, 2006, and is referred to herein as the "May Study." As

19. Scenario Three actually went beyond the bounds of the possible options. It was included to quantify the effect of policy guidance regarding equity considerations on the amount of savings that can be achieved. (As the chart on this page shows, even though the budgets in Scenario One are higher than in Scenario Three, the savings that could be achieved by them are lower because of the policy guidance regarding equity considerations.) However, removing all policy guidance related to equity considerations as Scenario Three called for would not have met the statutory requirement of 30 V.S.A. § 209(e)(1) that all retail customers have the opportunity to participate in an energy efficiency program offered by the EEU. This is because at those budget levels, removing the policy guidance would result in the EEU limiting its service offerings to those customer groups that are the least costly to serve.

Even though Scenario Four removed all policy guidance related to equity considerations, it would still have met the statutory requirement of 30 V.S.A. § 209(e)(1) because the scenario was expressly designed to capture all cost-effective savings, which include savings from all types of customers.

20. "Annualized first-year cumulative MWh savings" are the sum of the first year's energy savings for all the energy efficiency measures installed during each of the three years. In other words, this figure does not represent the accumulated savings realized over the life of each efficiency measure.

described later in this procedural history, the DPS modified the May Study in a filing made in late June, and filed a revised study in July (referred to herein as the "July Study"). The May Study and the modifications to it are described in detail in Section IV.D of this Order.

The third analysis performed as part of the workshop process examined the rate and bill impacts of the EEU budget. The DPS and Central Vermont Public Service Corporation ("CVPS") used independently-developed models to analyze the rate and bill impacts of four of the five budget scenarios[21] over a 10- or 15-year period under two different assumptions: first, that the entire budget was expensed each year; second, that each year's budget was financed and amortized over the lifetime of the savings purchased by the investment. The DPS used the same model to analyze the results of its achievable potential study.

In May 2006, participants in the workshop process filed recommended EEU budget levels for calendar years 2006, 2007, and 2008, along with their recommendations on what policy guidance the Board should provide the EEU. Later that same month, participants filed responses to other participants' recommendations.

On May 31, 2006, Act 208[22] became law. This new legislation further modified the objectives listed in 30 V.S.A. § 209(d)(4) that the Board must balance when determining the appropriate EEU budget. Specifically, Act 208 requires the Board to give particular emphasis to the following objectives: (1) reducing the size of future power purchases; (2) reducing the generation of greenhouse gases; (3) limiting the need to upgrade the State's transmission and distribution infrastructure; and (4) minimizing the costs of electricity. Act 208 also requires the Board to approve rate designs that encourage the efficient use of electricity, including consideration of the creation of an inclining block rate structure for residential customers with an initial block of low-cost power available to all residences.[23]

On June 26, 2006, the DPS filed via e-mail 12 corrections and updates to the annual budget amounts necessary to acquire all the achievable cost-effective energy efficiency shown in the May Study. The magnitude of the corrections and updates was significant.

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21. Rate and bill impact analyses were not performed for Scenario Three for the reasons explained in footnote 15.

22. P.A. No. 208 (2006 Vt., Adj. Sess.).

23. *See* 30 V.S.A. § 218(b).

On June 27, 2006, CLF filed via e-mail comments on the DPS's June 26, 2006, submission, arguing that the DPS's filing confirms CLF's and VPIRG's position that the May Study "grossly understates" the available cost-effective efficiency. CLF recommended that the Board "disregard the DPS analysis, or recognize its significant limitations" and significantly increase the EEU budget.[24]

On June 29, 2006, the Board issued a memorandum stating, in part, that:

> Because of the importance of [the May Study] in setting an appropriate budget level and the late date of the Department's filing, the Board does not believe that it has sufficient information to issue updated budget levels for the Energy Efficiency Utility ("EEU") in time for the 2006 budget levels to become effective with service rendered July 1. Instead, the Board will hold a workshop on July 19 and follow the schedule set out below with the intent of establishing rates that would be effective with service rendered August 1.

In response to a request in the Board's June 29, 2006, memorandum, the following electric distribution utilities filed statements that they would be able to modify their billing systems to implement new 2006 EEC rates effective with service rendered August 1, 2006 (bills rendered September 1, 2006) if the Board issued notice of those rates by August 15, 2006: the City of Burlington Electric Department; Green Mountain Power Corporation; CVPS; and the Village of Ludlow Electric Department. No electric distribution utility responded that it would be unable to meet these requirements.

On July 19, 2006, the Board held a workshop to discuss the changes and updates included in the DPS's June 26, 2006, filing.

On July 21, 2006, the DPS filed via e-mail the July Study. This study, and the differences between the May Study and the July Study, are described in detail in Section IV.D, below.

On July 25, 2006, CLF filed via e-mail comments on the July Study in which CLF urges the Board "to place only a limited reliance on this study" because the study "is not a credible or reliable study of what the available cost effective energy efficiency savings are for Vermont."[25]

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24. E-mail from Sandy Levine, CLF, to the e-mail service list established for the workshop process, dated June 27, 2006.

25. E-mail from Sandy Levine, CLF, to the e-mail service list established for the workshop process, dated July 25, 2006.

On July 26, 2006, the DPS filed revised recommended EEU budget levels for 2006, 2007, and 2008.

No other party filed comments on the July Study or revised recommended EEU budget levels.

III. PARTICIPANTS' RECOMMENDATIONS AND PUBLIC COMMENTS

Many participants filed EEU budget and associated policy recommendations for 2006, 2007, and 2008. Budget recommendations ranged from no increase during the entire three-year period, to an increase in each of the three years that would lead to a 2008 budget that is triple the current budget of $17.5 million. Participants' specific budget recommendations were as follows (grouped by recommended budget level):

- Phase in an increase leading to $52.5 million per year by 2008 – CLF; VPIRG; Vermont Businesses for Social Responsibility ("VBSR"); Glebe Mountain Group ("Glebe");
- Between $35 and $52.5 million per year – Rep. Gaye Symington, Speaker of the House; Sen. Peter Welch, President Pro Tem; Rep. Robert Dostis, Chair, House Natural Resources Committee; Rep. Kathleen Keenan, Chair, House Commerce Committee; Sen. Ann Cummings, Chair, Senate Finance Committee; Sen. Virginia Lyons, Chair, Senate Natural Resources and Energy Committee;
- $20.1 million in 2006, $26.5 million in 2007, and $35.4 million in 2008 – City of Burlington Electric Department;
- $18.0 million in 2006, $22.2 million in 2007, and $26.4 million in 2008 – DPS;[26]
- Cost-of-living increase – Franklin County Industrial Development Corporation;
- No increase – Associated Industries of Vermont; Ethan Allen Institute; Greater Burlington Industrial Corporation; Home Builders and Remodelers Association of Vermont; International Business Machines, Inc.; Lake Champlain Regional Chamber of Commerce; Vermont Business Roundtable; Vermont Chamber of Commerce; Vermont Energy Partnership; Vermont

26. These recommendations are those filed by the DPS on July 26, 2006. Before it identified the corrections and updates to the May Study, the DPS recommended EEU budget levels of $18.1 million in 2006, $20.0 million in 2007, and $22.8 million in 2008.

Grocers' Association; Vermont Hospitality Council; Vermont Retail Association; Vermont Ski Areas Association;

- Set aside $1 million of increased funding to develop PAYS alternatives – PAYS America;[27] and
- More planning work is needed before making a budget decision – University of Vermont.

In addition, the EEU Advisory Committee filed comments.[28] It did not make a consensus budget recommendation, but provided the Board with input regarding the various Committee members' opinions.[29]

Participants also made a wide variety of policy recommendations. These are too numerous to list individually. However, most of the recommendations did fall into some broad categories, including:

- how the Board should balance equity considerations with targeting energy efficiency, based on specific recommended budget levels, or more generally;
- what types of savings should be targeted by the EEU;
- what types of services the EEU should offer, or changes that should be made to current EEU program designs;
- whether the EEU should provide incentives for fuel-switching measures (either electricity to another fuel, or another fuel to electricity);
- that the EEU budget should be financed, rather than expensed;
- that the Board should consider other means of reducing rate impacts, such as requiring participants to pay back incentives they receive from the EEU, or

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27. PAYS stands for Pay-As-You-Save, which is an alternative method of funding energy efficiency investments. Under this method, the customer who receives the energy savings pays 100% of the measure cost over time out of the savings realized from the installation of the measure. These charges are collected on the customer's electric bill, and the charges stay with the property where the measure was installed, even if the original purchaser moves.

28. The EEU Advisory Committee was established as part of the original settlement agreement and Board Order that created the EEU. The EEU Advisory Committee provides advice to the Board and the EEU, but has no managerial responsibility or authority over the EEU. Its members are appointed by the Board and currently includes state legislators, a representative of the DPS, energy efficiency experts, consumer advocates, representatives from business organizations, a representative of the Vermont Economic Development Authority, and utility representatives.

29. Many EEU Advisory Committee members are from organizations that participated in the Board's workshop process and that filed separate EEU budget recommendations.

pay the entire cost of the installed measures over time out of the electricity bill savings;

- that the Board should consider alternative approaches (other than the EEU) to achieve energy efficiency goals;
- how often the Board should reconsider what is the appropriate EEU budget level.

The Board also received comments from eight businesses and over 80 individuals. The eight businesses and two of the individuals opposed any increase in the EEC. All other individuals supported an increase in the EEU budget.

IV. DISCUSSION

Act 61 and Act 208, collectively, institute several changes to 30 V.S.A. §§ 209(d) and (e). Including the new statutory language, the portion of 30 V.S.A. § 209(d)(4) that provides the Board with guidance for determining the EEU budget now reads:

> The charge established by the board pursuant to subdivision (3) of this subsection shall be in an amount determined by the board by rule or order that is consistent with the principles of least cost integrated planning as defined in section 218c of this title. As circumstances and programs evolve, the amount of the charge shall be reviewed for unrealized energy efficiency potential and shall be adjusted as necessary in order to realize all reasonably available, cost-effective energy efficiency savings. In setting the amount of the charge and its allocation, the board shall determine an appropriate balance among the following objectives, provided, however, that particular emphasis shall be accorded to the first four of these objectives: reducing the size of future power purchases; reducing the generation of greenhouse gases; limiting the need to upgrade the state's transmission and distribution infrastructure; minimizing the costs of electricity; providing efficiency and conservation as a part of a comprehensive resource supply strategy; providing the opportunity for all Vermonters to participate in efficiency and conservation programs; and the value of targeting efficiency and conservation efforts to locations, markets or customers where they may provide the greatest value.

In addition, Act 61 added 30 V.S.A. § 209(e)(14) which requires the Board to consider the impact on retail rates of energy efficiency programs.

We have considered all these factors in determining reasonable EEU budget levels, taking into consideration not only the substantial benefits of energy efficiency but also the rate impacts that the EEC will have on Vermont's electric customers.

A. Our EEU Budget Determination

For more than 15 years, Vermont law has required electric and gas utilities to consider energy efficiency along with generation, transmission, and distribution options when determining how they can provide least-cost service to their customers.[30] This law recognizes that implementing energy efficiency, when it is cost-effective, results in total utility costs that are lower than they otherwise would be.

Since March 2000, the EEU (rather than individual electric utilities) has delivered system-wide energy efficiency programs.[31] This change in implementation did not, however, change the underlying economics. The EEU's implementation of cost-effective energy efficiency still results in total electric costs (including the EEU's costs) that are lower than they otherwise would be.

Lower total electric costs for desired levels of electric service benefit all Vermonters and thus it is important for electric utilities, state policymakers, and regulators to take all appropriate steps to lower these costs.[32] One such step is to acquire all reasonably-available, cost-effective energy efficiency savings, as Vermont law requires. This requirement implicitly recognizes that all electric ratepayers benefit whenever any energy efficiency measure is installed. This is because cost-effective energy efficiency produces the system benefits described in Section IV.C, below, which reduce costs that would otherwise be passed on to all ratepayers in the form of higher rates at the time of a utility's next rate case. These system benefits are in addition to the

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30. *See* 30 V.S.A. § 218c.

31. The City of Burlington Electric Department ("BED") is an exception to this statement. Consistent with the Board-approved settlement that created the EEU, in 1999 BED filed a proposal to deliver most of the EEU's system-wide energy efficiency programs in its service territory. In light of BED's experience delivering energy efficiency programs and its desire to continue to serve its customers in this manner, the Board approved BED's proposal with the requirement that BED work closely with the EEU to ensure that the same energy efficiency services were offered to all Vermonters. Every three years since then (matching the three-year contract cycle with the entity serving as the EEU) the Board has re-evaluated whether BED should continue to deliver most of the EEU's system-wide energy efficiency programs in its service territory.

32. This is particularly important in light of three challenges facing our State: (1) Vermont is located at the end of the energy pipeline, far from fossil-fuel sources; (2) Vermont is one of the most rural states in the U.S., and it costs more to serve customers in less densely populated areas; and (3) Vermont's mountainous terrain increases transmission and distribution construction and maintenance costs.

bill reductions experienced by the ratepayer who actually installs the energy efficiency measure and therefore consumes less electricity.

After reviewing the information presented to us during this workshop process, we conclude that as long as the EEU budget is set at the former statutory cap of $17.5 million, the EEU will not be able to acquire all reasonably-available, cost-effective energy efficiency savings. This conclusion is supported both by the new energy efficiency potential study conducted by the DPS, and by the EEU's actual implementation experience.

The May Study stated that it would cost $305 million (in 2006 dollars) to acquire all achievable cost-effective energy efficiency savings over the next 10 years, and the July Study stated that it would cost $358 million (in 2006 dollars) to acquire the same amount of energy efficiency savings. As explained further below, we find both studies provide a conservative estimate of the reasonably-available, cost-effective energy efficiency potential during that time period.[33] Still, even this conservative estimate indicates that considerably more cost-effective energy efficiency could be acquired than is possible with an annual budget of only $17.5 million.

In addition, we are aware that there are currently several areas in which the EEU is: unable to respond adequately to market demand for its services; actively managing market demand for its services to avoid being in a position where it would not be able to respond; or passing up some activities that are part of a longer-term plan to achieve savings objectives in order to free up resources to respond to current market demand. We recognize the need for those trade-offs under the current funding level, and that it is likely that some such trade-offs will need to be made in the future as well.[34] Nevertheless, we want to minimize lost savings opportunities while still enabling the EEU to provide the training to contractors, business customers, and partners that is necessary for long-term market transformation.

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33. The May Study and the July Study conclude that the same amount of cost-effective energy efficiency savings is achievable over the next 10 years, but they differ in the cost of acquiring that savings.

34. We do not mean to imply that budget limitations are the only reason why the EEU makes such trade-offs. Another reason is that, in some areas, the demand for trained contractors and other trade allies who can implement energy efficiency measures has outstripped the local supply. These two causes are linked, however, since the amount of training that can be provided to Vermont contractors and other trade allies is affected by the overall EEU budget.

Furthermore, we took into account the new guidance in Act 208 regarding the objectives we are to consider when determining the amount of the EEU budget. All four of the objectives we are required to give "particular emphasis" to are supported by the acquisition of additional cost-effective energy efficiency, which the EEU could do if its budget were increased.

At the same time, however, Act 61 requires us to consider the effect on retail rates of the EEU's programs. The DPS and CVPS independently developed models to analyze the rate and bill impacts of various EEU budget levels. These analyses showed that while increasing the EEU budget lowers statewide electric bills (total statewide electric costs), it also raises rates. We are concerned about the short-term rate impact of increasing the EEU budget, particularly since 12 electric utilities have recently filed for rate increases ranging from 6.15 percent to 22.86 percent. Even though the short-term rate impacts of increasing the EEU budget are significantly less than even the smallest of those percentages (the short-term rate impacts of parties' recommendations range between -0.06% and 3.87%, while our decision is likely to increase rates less than 0.2 percent in 2006, approximately 0.5 percent in 2007, and approximately 1.2 percent in 2008), we nevertheless recognize that the effect is additive and even a small additional increase matters. This concern regarding short-term rate impacts leads us to conclude that the EEU budget should be increased at a slower rate than would otherwise be appropriate if the short-term rate impacts could be reduced or eliminated.

Therefore, for the reasons set forth herein, after considering the relevant statutory criteria, information presented during the workshop process, participants' recommendations, public comments, the DPS's recent corrections of errors and updates to the May Study,[35] participants'

35. While we appreciate that the DPS informed us of the errors in the May Study, we are concerned about the magnitude of the corrections and updates. The $11.2 million error alone represents more than a 36% increase to the study's original budget conclusion, and the average annual budget resulting from the July Study is over 17% higher than the May Study's average annual budget. This illustrates the complexity of the studies' modeling effort and the significant effect that changes to some of the inputs can have on the studies' results. It also highlights the fact that both the May Study and the July Study provide only an estimate of the achievable cost-effective energy efficiency potential in Vermont, and only an estimate of the annual budgets necessary to acquire these energy savings. We took these factors into account when determining the weight to accord to the July Study's conclusions.

responses to those corrections and updates, and the other costs of the EEU program,[36] we conclude that the appropriate EEU budget levels for the 2006 – 2008 time period are as follows:

- 2006 – $19.5 million;
- 2007 – $24 million; and
- 2008 – $30.75 million.[37]

A comparison of these budget levels to participants' recommendations is shown in the following table.

36. Other EEU program costs include the costs of the DPS's EEU measurement and evaluation activities, the EEU Contract Administrator, the EEU Fiscal Agent, and the annual audit of the EEU Fund. The average annual budgets included in the May Study did not include the costs of these necessary services. The July Study included approximately $900,000 for these costs in 2006, increasing to approximately $1.1 million for these costs in 2015. The budgets we approve in this Order include funds for these costs.

37. We note that if we had the ability to mitigate the rate impact of increasing the EEU budget, such as by financing the energy efficiency investment in the same manner that supply-side resources are financed, we would have concluded that it would have been reasonable to increase the budget further.

Comparison of Recommended Funding and Increase Levels in Year Three and in Cumulative Funding *Dollars in millions*				
Party	**2006**	**2007**	**2008**	**3-year total budget**
CLF, VPIRG, VBSR, Glebe[38]	$20.1	$31.5	$52.5	$104.1
Letter from six legislators[39]	*	*	$35.0 - $52.5	*
City of Burlington Electric Dept.	$20.1	$26.3	$34.4	$80.8
DPS[40]	$18.0	$22.2	$26.4	$66.6
Various businesses and business groups	$17.5	$17.5	$17.5	$52.5
PSB Order	$19.5	$24	30.75	$74.25

We believe the budget increase we have set today represents an aggressive goal given the current conditions of the state and global economy, and the pressures these conditions exert on businesses and individuals. The budgets established in our Order balance the EEC's short-term rate impacts with the long-term benefits of energy efficiency. This phased implementation provides additional funding now to enable the EEU to work to minimize lost opportunities while still providing funding for training of contractors, business customers, and partners that is

38. CLF, VPIRG and VBSR advocated Scenario Five, which includes the budget levels shown for 2006 and 2007. Glebe did not specifically mention Scenario Five but advocated the funding level associated with the Scenario by year three.

39. The six legislators are: Rep. Gaye Symington, Speaker of the House; Sen. Peter Welch, President Pro Tem; Rep. Robert Dostis, Chair, House Natural Resources Committee; Rep. Kathleen Keenan, Chair, House Commerce Committee; Sen. Ann Cummings, Chair, Senate Finance Committee; and Sen. Virginia Lyons, Chair, Senate Natural Resources and Energy Committee. The letter filed by these legislators recommended that the spending on energy efficiency be doubled or tripled, but did not address how or if to phase in the increase to those levels.

40. These are the revised budget recommendations filed by the DPS on July 26, 2006.

necessary for long-term transformation.[41] The phased implementation also provides time for the Board to work with appropriate policymakers and stakeholders to explore obtaining financing authority.

In addition, we recognize that circumstances change over time, and it is possible that the balance of statutory objectives that we find appropriate today might not be appropriate in the future. Therefore, we will reconsider the budget level for 2008 in 15 months, or sooner if the Board or other appropriate entity is granted authority to finance (rather than expense) the EEU budget, as discussed in more detail below. At that time, we may decide the budget level we set today for 2008 remains appropriate, or may increase or decrease the 2008 level.

B. Financing the EEU Budget

Our determination regarding an appropriate EEU budget seeks a balance between the short-term rate effects and the long-term benefits of efficiency. Ideally we would be able to match the timing of ratepayers' payments for the efficiency investments with the timing of ratepayers' receipt of the benefits from those investments. Since as a practical matter we are unable to adjust the time period over which ratepayers receive the benefits, we find that particular emphasis should be put on lengthening the time period over which ratepayers pay for the investments. This would provide a solution to the short-term impact on rates of investing in energy efficiency.

Currently the entire EEU budget is expensed each year, even though the energy savings that are acquired with those funds extend well into the future.[42] Another way of funding the acquisition of energy efficiency would be to finance (amortize) it over the lifetime of the energy savings.[43] This is similar to how supply-side resources are paid for — for example, new power plants and transmission lines are financed by the utilities and then depreciated over the expected

41. Phasing in the increase to the budget the way we have determined will allow time for additional Vermont personnel to be trained in implementing energy efficiency measures, thereby reducing the current demand and supply imbalance for such services.

42. The average lifetime of savings acquired by the EEU has ranged from 12 to 15 years.

43. This would not be unprecedented in Vermont — in the past BED has issued bonds to finance its energy efficiency expenditures.

lifetime of the new facilities, with the annual depreciation amounts included in the utility rates that customers pay.

Coincidentally, Act 61 also establishes a State policy of advocating before regional and federal organizations that, when cost recovery is sought through regionwide regulated rates, energy efficiency should be treated comparably to supply-side resources, including access to funding.[44] While this statute only refers to cost recovery through regionwide rates, the same principle is just as valid in-state as well. Typically, ratepayers pay for supply-side resources over the lifetime of the resources through depreciation; the construction of the McNeil power plant in Burlington is one example of a supply-side resource funded in this manner. Or, in the case of a purchased-power contract (such as the contract between the Vermont Joint Owners and Hydro-Québec), each year customers pay only for the power that is contracted for that year. Once again the payments are spread over the lifetime of the resource, in the case of the Hydro-Québec contract, the duration of the contract. This contrasts significantly with the current practice of expensing the entire energy efficiency investment in the year in which it is incurred, even though the energy savings extend over many years.

Financing the EEU budget also addresses the issue of intergenerational equity by matching the timing of payment for resources with the benefits received from those resources. This ensures that one "generation" of ratepayers is not subsidizing another generation's utility service, and is consistent with the fundamental ratemaking principle that customers should pay for the cost of the service they receive. It is less equitable to require current ratepayers to pay for benefits that accrue to future ratepayers, just as current ratepayers should not defer costs associated with the service they receive to future ratepayers. Matching the timing of ratepayer payments for an investment with ratepayers' receipt of the benefits from that investment ensures that those who receive the benefits pay a fair share of the costs.

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44. *See*, Section 8 of Act 61. The Board and the DPS advocated consistent with this policy before the Federal Energy Regulatory Commission ("FERC") during recent settlement negotiations that replaced the New England Independent System Operator's proposed Locational Installed Capacity mechanism ("LICAP") with an alternative Forward Capacity Market mechanism ("FCM"), that was approved by FERC on June 15, 2006. We were successful in achieving a requirement that energy efficiency and other demand-side resources be eligible for capacity payments during a three-and-a-half-year transition period beginning December 1, 2006, and are continuing to work on details of how demand-side resources might be eligible to participate in the long-term FCM. (FERC Docket Numbers ER03-563-030, ER03-563-055).

The Board has previously recognized the importance of this issue, stating "[i]ntergenerational equity is of great concern to us"[45] and "we conclude that preserving intergenerational equity promotes the general good of the state." [46] The Board has repeatedly applied this principle with respect to supply-side resources.[47] It is equally appropriate to apply it to energy efficiency investments.

The analyses performed in this proceeding show that financing the EEU budget would significantly mitigate the rate impacts of increasing the EEU budget. Specifically, the analyses demonstrate that, in the short-term, rates could actually be reduced if the EEU budget were financed (or if not reduced, the same rates could support even greater efficiency investments), and over the long-term, rates would increase considerably less than if the budget continues to be expensed.

For these reasons, we have decided to conduct a series of meetings and workshops to determine the range and feasibility of various financing options. This process is consistent with the statutory requirement that the Board "[c]onsider innovative approaches to delivering energy efficiency, including strategies to encourage third party financing and customer contributions to the cost of efficiency measures."[48] We hope that the appropriate State officials and financial interests will contribute their expertise to these workshops to help us consider appropriate and

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45. Dockets 6946/6988, Order of 3/29/05, at 116.

46. Docket 6959, Order of 9/26/05, at 43.

47. *See*, e.g., Docket No. 5360, Order of 11/17/89 at 4 ("in view of the proposed use of this credit line to fund capital investments in generation, transmission, and distribution facilities, a long-term credit instrument would appear to be appropriate. This is especially true from a rate perspective since ratepayers will be benefitting from these facilities over the long term and therefore, capital costs should be spread over a similar period to prevent intergenerational inequities.") *See also*, Dockets 5483/5484, Order of 5/15/92 at 12 (finding 36). ("In nominal dollar terms, increasing the proportion of capital improvements funded through current revenues results in lower costs for its customers. This method ignores intergenerational equity since, ideally, ratepayers should pay the cost of a capital asset over its useful life. Spreading the cost in this manner more closely matches costs with ratepayers' income, which is also spread out over time."); Docket 5656, Order of 1/26/94 at 43 ("It is therefore crucial that the depreciation rates for the future are set as accurately as possible so as to minimize both the short-term risk of higher than necessary rates and the risk of inter-generational inequity."); and Docket No. 6495, Order of 11/9/01 (in which the Board rejected Vermont Gas System, Inc.'s proposed deferral of certain costs, after the Department argued that the deferrals would violate the principle of intergenerational equity).

48. 30 V.S.A. § 209(e)(6).

timely solutions that would enable us to mitigate the short-term rate impacts of investing in energy efficiency.

At the conclusion of these workshops and meetings, we will produce a report describing our recommendations about whether such financing authority should be granted, and if so, what such authority might look like. If financing authority is established, we will revisit the EEU budget levels established in today's decision.

Our preliminary consideration of financing alternatives leads us to believe that new legislation may be required to provide the authority and legal basis for a financing structure.[49] In addition to providing or establishing an entity with bonding authority to implement EEU financing, we will also explore other alternatives. Among the possibilities are securitization, commercial financing, and perhaps making energy efficiency projects available for the reduced-cost funding available under the Sustainably Priced Energy Enterprise Development ("SPEED") Program that was established in Act 61.[50]

C. System Benefits of Energy Efficiency Programs

The benefits of energy efficiency programs to customers who participate in those programs are widely recognized — energy efficiency programs help customers reduce their electricity consumption, thereby lowering their bills. Unfortunately, many Vermonters do not realize that ratepayers who do not participate in energy efficiency programs also benefit from those programs.

Because energy efficiency investments are only made if they are cost-effective, they reduce the amount of total costs associated with providing electricity, which would be passed on to all ratepayers in the form of higher rates at the time of the utility's next rate case. In other words, there are "system benefits" associated with energy efficiency investments that accrue to all

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49. We have deliberately phased in the increase to the EEU budget in a manner that the largest increase will occur in 2008 in the hope that, if legislation is required, this will give the Legislature ample time to provide financing authority to an appropriate entity, thereby allowing the rate impact of this increase to be mitigated.

50. Under the SPEED program, an eligible project may qualify for certain funding from certain agencies at very favorable rates. 30 V.S.A. § 8005(c).

ratepayers, regardless of whether they participate in the energy efficiency programs. These system benefits include:

- reduced power purchases and transmission costs that a utility would otherwise have had to incur;
- reduced reserve margins that a utility would otherwise have had to meet;[51]
- reduced ancillary service charges that a utility would otherwise have had to incur;[52]
- reduced transmission line losses that a utility would otherwise have experienced;[53]
- reduced costs of hedging against volatility; and
- deferred need for transmission or distribution system upgrades.

Many of these system benefits are difficult to quantify, but that does not make them any less real or significant.

Vermont law expressly recognizes some of these system benefits (such as the ability of energy efficiency to reduce the size of future power purchases and to help limit the need to upgrade Vermont's transmission and distribution systems). Others are implicitly acknowledged in that the statute recognizes that energy efficiency can help minimize the costs of electricity.

Our decision today takes these benefits into account, and balances them with the short-term rate impacts of increasing the EEU budget.

D. Electric Energy Efficiency Achievable Potential Study

30 V.S.A. § 209(d)(4) requires that the EEU budget "be adjusted as necessary in order to realize all reasonably available, cost-effective energy efficiency savings." A common way to

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51. For reliability purposes, utilities are required to demonstrate that they can provide a certain percentage more power generation than they expect to actually need for the purpose of covering contingencies. This extra power generation is referred to as a "reserve margin." The costs of reserve margins are charged to all utility customers. Therefore, if one customer uses less power, the utility's required reserve margin is lower, and all customers benefit.

52. Ancillary services are necessary services for the electricity system to operate reliably. These include services that enable the system operator to exactly match electricity demand and supply at every moment, which is necessary to prevent changes in voltage levels and system outages. All customers benefit when a utility's purchases of ancillary services are decreased.

53. Under the laws of physics, line losses increase exponentially as transmission loads increase linearly. All customers pay for line losses. When one customer reduces his or her demand, less generation is transmitted from the source to the customer and line losses are lower, thereby benefitting all customers.

assess the amount of cost-effective energy efficiency savings is to conduct an energy efficiency potential study. These studies typically measure energy efficiency potential in one or more of the following ways: technical potential, maximum achievable potential, and maximum achievable cost-effective potential. Technical potential considers what is technically possible from an engineering perspective. Maximum achievable potential recognizes that it is not realistic to expect that all energy efficiency measures that are technically feasible would actually be installed. Maximum achievable cost-effective potential includes those technically and reasonably possible measures that are also cost-effective.

As part of the Board's process for re-evaluating the EEU budget, the DPS performed a new electric energy efficiency potential study. As explained in this Order's procedural history, two "final" versions of this study were filed with the Board, the May Study and the July Study. Both versions of the study found the same levels of technical potential savings (35% of projected 2015 kWh sales), and achievable cost-effective energy efficiency savings (19.4% of projected 2015 kWh sales). In addition, both studies concluded that there are significant potential net present value savings to Vermont ratepayers from the acquisition of the achievable cost-effective potential — approximately $895 million (in 2006 dollars) in the May Study, and approximately $964 million (in 2006 dollars) in the July Study. Both studies also found that additional cost-effective potential appears to exist for early retirement programs at a very high budgetary cost, and on a short-term basis.

The studies concluded that significantly different annual budget amounts would be necessary to acquire all the achievable cost-effective energy efficiency.[54] The May Study found that the average annual budget necessary to acquire the estimated achievable cost-effective

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54. The largest component of the difference in the annual budget amounts relates to the incentives paid to commercial customers, which were erroneously excluded from the calculation of the annual budget amount in the May Study (the incentives were correctly included in all of the benefit/cost ratio calculations). Correcting this error would increase the average annual EEU budget amount resulting from the May Study by $11.2 million. (To put this figure in perspective, originally the average annual EEU budget resulting from the May Study was $30.5 million.)

The July Study also includes 11 other corrections and updates identified by the DPS that partially offset the $11.2 million increase and two additional updates based on comments made by workshop participants. The July Study also includes the costs of the DPS's EEU measurement and evaluation activities, the EEU Contract Administrator, and the Fiscal Agent for the EEU Fund (these costs were not included in the May Study). The net effect of all the adjustments is to increase the average annual EEU budget amount resulting from the achievable potential study by $5.3 million.

potential is approximately $30.5 million (in 2006 dollars) over the ten-year period that was the subject of the study, while the comparable figure in the July Study is $35.8 million (in 2006 dollars). The rate impacts of acquiring this achievable cost-effective potential are roughly 2.4% in the May Study (reflecting levelized estimates over 10 years from 2006 through 2015, and assuming annual budgets of $30.5 million from 2006 through 2015) and approximately 3% in the July Study.[55] Both studies concluded that a significant portion of the annual budgets necessary to acquire the estimated achievable cost-effective potential are for fuel-switching measures in which end uses such as space heating and water heating are converted from electric to fossil fuels (approximately 25% in the May Study and approximately 22% in the July Study).

The DPS contends that because the current market price of oil is significantly above the estimates of avoided costs for oil that were used in its study, it is likely that significantly fewer fuel switching measures are cost-effective than the study indicates. In addition, the DPS argues that, given current circumstances, fuel switching would result in customers being moved from a stable (albeit high-priced) fuel source to a very volatile one. As a result, the DPS recommends that the Board not fund additional fuel-switching measures.

Several participants filed comments on the May Study.[56] The participants do not agree that the May Study accurately captures all achievable cost-effective potential. Some participants argue that the May Study understates the potential because:

- it considers only efficiency that is obtained with a 50% cost incentive payment by the EEU, even though some efficiency would still be cost-effective if the EEU paid a higher incentive to participants;
- it includes only a limited set of retrofit measures; and
- the study unrealistically assumes that electricity prices will drop considerably in a few years, largely as a result of predicted significantly lower natural gas prices that commenters believe are unlikely to materialize.

Other participants argue that the May Study overstates the potential because:

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55. This figure is from the DPS's July 26, 2006, filing, not the July Study. The July Study itself states that, based on the DPS's spreadsheet model, the rate impact would be over 6.5%. However, we do not rely upon this figure. It is inconsistent with the rate impacts calculated by the DPS for other budget levels, and the DPS itself has provided in its July 26, 2006, filing the 3% rate impact figure that is consistent with its other calculations.

56. These comments are also applicable to the July Study since the corrections and updates made in the July Study were unrelated to the comments.

- it bases budget estimates on a cost-effectiveness standard rather than a least-cost solution;
- some of the study's assumptions appear inconsistent; and
- the study's approach fails to account for the impacts of market and non-market uncertainties.

An achievable potential study is a complex undertaking that requires a variety of assumptions to be made. The nature of these assumptions can have a significant impact on the study's results. In this instance, after reviewing both studies and the participants' comments on the May Study and the July Study, we are persuaded that: (1) the methodology used by the DPS in both studies was appropriate; (2) some of the assumptions used by the DPS were conservative;[57] and (3) both studies show more achievable cost-effective potential due to fuel switching than exists in the short term, given the current high oil prices. On balance, we conclude that both studies produced a conservative estimate of the actual reasonably-available, cost-effective energy efficiency savings in Vermont. In order to offset this conservatism, we conclude that it would be appropriate to set the EEU budget at a level higher than that which would be indicated by a strict application of the July Study.[58]

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57. For example, the study assumes that incentive levels of only 50 percent of the measure's incremental cost would be paid to participants. We recognize that the DPS study made this assumption because: (1) 50% is commonly used when performing energy efficiency technical potential studies; (2) the National Energy Efficiency Best Practices Study recommends against using a 100% incentive level as a program strategy; and (3) financial incentives are only one of many programmatic marketing tools. Nevertheless, in reality, many measures would still be cost-effective if higher incentive levels were paid. (We recognize that in practice Efficiency Vermont negotiates incentive levels for custom measures and projects, thus there is no fixed incentive level that is paid to customers for these types of projects.)

In addition, the study's conclusion does not include early retirement measures, which are measures that replace existing appliances or equipment before the end of their useful lives, even though the DPS acknowledges that some early retirement measures would be cost-effective, although more expensive than other, non-early retirement measures. (The study did analyze early retirement measures in a separate scenario, but the savings from those measures were not included in the study's overall achievable cost-effective potential findings.)

58. This conclusion is reinforced by the magnitude of the corrections of errors and updates filed by the DPS on June 26, 2006, and July 21, 2006, and reflected in the July Study; the magnitude of the errors and updates demonstrate how changes in assumptions can cause significant changes in the study's results.

E. Statutory Requirements Given "Particular Emphasis"

The statute requires the Board to give "particular emphasis" to four objectives: reducing the size of future power purchases; reducing the generation of greenhouse gases; limiting the need to upgrade the state's transmission and distribution infrastructure; and minimizing the costs of electricity. We discuss each of these in turn.

(1) Reducing the Size of Future Power Purchases

All energy efficiency savings reduce future power needs. Currently, energy efficiency savings allow Vermont's utilities to either purchase less electricity from the regional wholesale market or to sell excess energy in this market. Such reductions in market purchases or increases in market sales are particularly valuable now because of the high prices in the regional wholesale market. The opportunity for electric utilities to buy and sell power on the margin as a result of energy efficiency savings will continue to exist in the future, although we recognize that if market prices fall from today's high levels, the value of this opportunity will change.

In addition, because many energy efficiency measures have long lives,[59] energy efficiency measures installed today have the ability to reduce the size of future long-term power purchases. Vermont's most significant sources of power are the long-term contracts with Vermont Yankee and Hydro-Québec, which collectively account for approximately two-thirds of electric power consumed in the State. These contracts will end, or begin phasing out, in 2012. Even under the most optimistic assumptions regarding achievable energy efficiency potential, the State's utilities would not be able to acquire sufficient energy efficiency savings to supplant the need for new generating plants or sizable power contracts such as those currently with Vermont Yankee and Hydro-Québec, although increased investment in energy efficiency measures with long lives could reduce the size of the purchases that would be required.[60]

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59. While the average lifetime of measures installed by Efficiency Vermont has ranged from 12 to 15 years, many measures, particularly those associated with new construction or other building modifications, have considerably longer lives.

60. We recognize that investing now in measures with short lifetimes will not affect the size of contracts that would replace the current long-term contracts with Vermont Yankee and Hydro-Québec. However, investments in measures with long lifetimes could. This raises an interesting question related to targeting — should the EEU be directed to focus more attention on measures with long lifetimes? The issue of targeting is discussed further in

(2) Reducing the Generation of Greenhouse Gases

Due to the resource mix of Vermont's utilities, the State's emissions of greenhouse gases from electric generating sources is currently very low. Generation sources of greenhouse gas emissions in Vermont are primarily the diesel peaking units owned by Vermont utilities. Greenhouse gas emitting sources outside of Vermont range from baseload coal generating plants to natural gas-fired peaking units. Reducing greenhouse gas emissions within Vermont would require targeted energy efficiency aimed at reducing peak loads, thereby reducing the amount of time that fossil-fuel-fired peaking units are required to run. To the extent that the Vermont utilities purchase electricity produced by fossil-fuel-fired generating units located outside the state, increases in energy efficiency savings (which would be achieved if the EEU budget were increased) should reduce the amount of electricity purchased from such sources, which should reduce greenhouse gas emissions.

(3) Deferring Transmission and Distribution Upgrades

The Board has previously recognized the role that energy efficiency can play in deferring transmission and distribution upgrades, most recently in Docket 6860 (an investigation into a petition for a major transmission project in the western part of the State).

When reviewing transmission upgrades, the Board is required by statute to determine whether the proposed project:

> is required to meet the need for present and future demand for service which could not otherwise be provided in a more cost effective manner through energy conservation programs and measures and energy efficiency and load management measures, including but not limited to those developed pursuant to the provisions of sections 209(d), 218c, and 218(b) of this title.[61]

In Docket 6860, the Board ultimately concluded that the proposed project was needed to ensure reliability for the State, but determined that it would open an investigation into the planning process of Vermont's electric transmission company to ensure that non-transmission alternatives, including energy efficiency, were given equal and timely consideration in the future.

Section IV.F.3, below.

61. 30 V.S.A. § 248(b)(2).

The transmission upgrades authorized by Docket 6860 are estimated to cost Vermont ratepayers $48.8 million.[62] Additionally, although the Board has mitigated the environmental and aesthetic impacts of the proposed project, the transmission upgrades necessary to ensure reliability for Vermont will still have such impacts.

The Transmission Plan mandated by Act 61, and the investigation into the transmission planning process (Docket 7081), should allow the Board to identify and target constrained areas with an eye towards deferring or obviating transmission upgrades. Once those constrained areas have been identified, energy efficiency could be concentrated in the constrained area, as part of the solution to the constraint.[63] Such targeting of energy efficiency investments in constrained areas is explicitly contemplated by another statutory objective, and is discussed further below.

(4) Minimizing the Costs of Electricity

One of the factors driving recent electric utility rate increase requests is the fact that regional wholesale electricity market prices are both high and volatile. Marginal energy and capacity needs, especially during peak times, are typically bought on the market, contributing disproportionately to power costs. Targeting energy efficiency to reduce peak load would therefore have the benefit of stabilizing and reducing power costs, and ultimately rates.

There are other ways that energy efficiency investments minimize the costs of electricity. These system benefits are discussed in detail in Section IV.C, above.

Another way of stating "minimizing the costs of electricity" is "minimizing statewide electricity bills." Such bill impacts were analyzed as part of the workshop process using the same models that analyzed rate impacts. We discuss the results of these rate and bill impact analyses in a separate section, below.

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62. Docket 6860, Order of 9/23/05 at 11, 24.

63. We recognize that there might be situations in which energy efficiency, even combined with other local solutions such as distributed generation, could defer a transmission or distribution system upgrade for only a limited period of time. In those situations, parties and the Board will need to consider the tradeoffs associated with the various options. For example, deferring a system upgrade could result in the upgrade costing significantly more in the future, but it could also provide time for new technologies to mature that might make other alternatives more feasible.

F. Other Statutory Requirements

In addition to those objectives to which the Board is required to give "particular emphasis," there are four more objectives that the Board must consider in determining an appropriate budget level for the EEU: (1) providing efficiency and conservation as part of a comprehensive resource supply strategy; (2) providing the opportunity for all Vermonters to participate in efficiency and conservation programs; (3) targeting efficiency and conservation efforts to locations, markets or customers where they may provide the greatest value; and (4) rate impacts. We discuss each of these below.

(1) Providing Efficiency and Conservation as a Part of a Comprehensive Resource Supply Strategy

Vermont law has long required electric utilities to include efficiency and conservation as part of their integrated resource plans.[64] In addition, electric utilities must consider whether the need for new transmission or generation resources can be met more cost-effectively by investment in energy efficiency.[65]

When the EEU began operation, the Board deemed the EEU's programs to satisfy electric utilities' obligations to conduct system-wide energy efficiency programs in their service territories. The EEU then provides information about the results of its activities to electric utilities so that the electric utilities can incorporate those results into their integrated resource plans. How to improve such coordination among the EEU and Vermont's electric transmission and distribution utilities is one of the issues currently being considered in the Board's investigation into integrated resource planning for transmission utilities (Docket 7081).

(2) Providing the Opportunity for all Vermonters to Participate in Efficiency and Conservation Programs

Section 209(e)(1) directs the Board to: "Ensure that all retail consumers, regardless of retail electricity or gas provider, will have an opportunity to participate in and benefit from a

64. *See* 30 V.S.A. § 218c.

65. *See* 30 V.S.A. § 248(b)(2).

comprehensive set of cost-effective energy efficiency programs and initiatives designed to overcome barriers to participation." Act 61 added similar language to 30 V.S.A. § 209(d)(4) as one of the objectives that the Board must balance when determining the amount of the EEU budget.

This statutory requirement relates more to the policy guidance given by the Board to the EEU regarding distributional equity, and thus to the design of the EEU's service offerings, than to the overall EEU budget level. However, it is the reason that we did not ask participants to conduct rate and bill analyses of Scenario Three. Because that scenario directed the EEU to spend all of its budget on the most cost-effective savings, the EEU's service offerings would have been limited, and not all electric ratepayers would have had the opportunity to participate in one of its programs.

While we do not decide in this Order how to balance this statutory objective with the following one regarding targeting of energy efficiency, we affirm that we will ensure that the EEU provides a variety of service offerings so that all Vermont electric ratepayers will continue to have the opportunity to participate in one of its programs. As discussed below, we will provide participants with an opportunity to file written comments and responses on this issue before we determine the appropriate balance.

(3) Targeting Efficiency and Conservation Efforts to Locations, Markets or Customers Where They May Provide the Greatest Value

There is significant value in targeting energy efficiency because some types of customers and some locations are more costly to provide with energy efficiency services than others, and because the system benefits of energy efficiency investments in some locations are higher than in others. There are three types of targeting that can be achieved: targeting energy efficiency savings within a geographic area to defer the need for transmission and generation infrastructure, achieving peak load reductions by focusing on particular efficiency measures,[66] and providing

66. We note that the New England Independent System Operator asserts that, because of the design of the regional power market, small reductions to the New England system peak could result in significant monetary savings for ratepayers throughout the region. Specifically, a recent study for the NE-ISO found that reducing New England's usage by 5% during on-peak hours will lower consumer costs by $580 million a year. Electricity Costs

more funding for those programs that achieve the greatest savings possible for the least amount of investment. It is anticipated that there would be substantial overlap between these goals.

However, taken to its extreme (as Scenario Three did), targeting would result in a set of EEU service offerings that did not provide all electric ratepayers with an opportunity to participate in the programs. As a result, it is necessary to balance this statutory objective with the previous one. We received some recommendations from participants on how to balance these goals, but none of them was linked to the specific EEU budget levels that we have determined to be reasonable. As a result, we conclude that additional input from participants would be useful, and we will provide participants with an opportunity to file written comments and responses on this issue before we determine the appropriate balance.

In addition, we note that the memorandum of understanding in Docket 5980,[67] approved by the Board, requires that:

> Over time, the System-wide Programs offered by the EEU should generally reflect a level of expenditure that corresponds to electric energy use by geographic region and customer class throughout the state. In this regard, the Parties agree that the design of the System-wide Programs and the budgets for those Programs should generally seek to provide a level of service to customer classes and regions of the state that corresponds to their share of the eligible energy efficiency potential and their contribution to DSM expenditures.[68]

and

> The EEU budgets and funding mechanisms agreed to in paragraphs 17, 21, and 24 of this [memorandum of understanding] are for the administration and implementation of System-wide Programs (including the Core Programs) which are statewide programs addressing system-wide DSM. . . .[69]

Act 61 and Act 208 impose new requirements pertaining to the use of EEC funds that were not present at the time the 5980 MOU was signed by the parties to that docket and approved by the Board. Consequently, issues such as distributional equity and the limitation of the EEU's

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White Paper, NE-ISO, June 1, 2006.

67. Docket 5980 was an investigation into the Department's proposed Energy Efficiency Plan, which resulted in the creation of the EEU.

68. Docket 5980, Order of 9/30/99, p. A-21 – A-22, ¶ 45.

69. Docket 5980, Order of 9/30/99, p. A-19 – A-20, ¶ 37.

activities to system-wide programs, as they are framed by the language of the 5980 MOU, must be revisited. We hereby reiterate our intent to revisit these issues as part of this workshop process.

(4) Rate and Bill Impacts

Just as the system-wide benefits of investments in energy efficiency accrue to all customers, all customers also pay some of the costs of those investments — those costs paid by the EEU.[70] In addition, reduced electricity consumption means that a utility's fixed costs are spread among a smaller kWh and kW base (or at least a kWh and kW base that is growing more slowly), which can put upward pressure on utility rates. Therefore, in order to fully understand the effect of energy efficiency programs on customers, it is necessary to look at the effect those programs have on both the rates paid by customers and customers' total utility bills.

The Board asked participants in this process to present information on the rate and bill impacts of the various budget scenarios. In addition, the Board asked participants to consider what the rate and bill impacts would be if the EEU budget continued to be expensed (collected via the EEC) and, alternatively, if it were financed (through bonding, securitization, or some other method) and paid for over the lifetime of the savings, the same way that a power supply resource is paid for over its lifetime.

The DPS and CVPS developed separate models to analyze the rate and bill impacts. Both models considered the effect on rates paid by customers for all electric services, including utility and EEC rates. The models also examined the effect of the energy efficiency programs on total utility bills, including the EEC component. The models calculated average rate and bill impacts, and expressed them as percentage differences from what average rates and bills would have been under a "base case" in both the short and long term.

We recognize that any individual customer would be likely to experience rate and bill impacts different from the average results produced by the models. This is because any individual customer's rate impact will depend on the rates actually paid by that customer, which

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70. The recipients of the energy efficiency measures and third parties pay the remainder of the costs of those investments.

vary depending on utility service territory and customer class. In addition, any individual customer's bill impact will be affected by whether the customer participated in any of the EEU's programs. Those who participated will have lowered their electricity consumption, and thereby their utility bills, while those who did not participate will not experience the same bill reductions.

Nevertheless, we conclude that the models provide useful information regarding the average rate and bill impacts of the various budget scenarios. The EEU delivers services statewide, and it is appropriate to consider the statewide average impacts of its activities when determining its budget.

CVPS's and the DPS's models produced generally consistent, but not identical, results because they were constructed differently. For example, while both models consider the rate and bill impacts over an extended period of time, that time period is 10 years in the DPS's analysis and 15 years in CVPS's analysis. In addition, the two models use different "base cases" to calculate the impacts.

Despite these differences, both models showed that, compared to the base case, increasing the EEU budget produced rate increases in the near term and levelized[71] rate increases for all scenarios if the budget was expensed, and rate decreases in the near term[72] followed by significantly smaller rate increases for all scenarios if the budget was financed. Both models showed levelized statewide bill decreases for most scenarios if the budget was expensed (again compared to the base case), and larger levelized statewide bill decreases for all scenarios if the budget was financed.

The results of the DPS's calculation of the short-term effects of expensing and financing the different budget scenarios,[73] and expensing the budget amount resulting from the DPS's May

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71. In order to show the long-term effect of the energy efficiency programs on rates and bills, both models levelized the effect over a number of years. Thus, the levelized rate and bill impacts can be thought of as the long-term effect of the energy efficiency programs.

72. These decreases could come from a reduction in the EEC.

73. The scenarios are described in the table on page 9 of this Order.

Study,[74] are shown in the following charts.[75] The percentages are compared to the DPS's base case, which the DPS defined as including an EEU budget set at the current level ($17.5 million). In other words, the percentages show the changes in rates or bills from what they would have been if the Board did not modify the EEU budgets for 2006, 2007, and 2008. Positive percentages show rate or bill increases, while negative percentages indicate rate or bill decreases (compared to the base case).

Statewide Average Rate Impacts – Expensing the EEU Budget (Per DPS)					
	Scenario 1	Scenario 2	Scenario 4	Scenario 5	May Study
2006	0.19%	(0.06%)	2.46%	(0.06%)	1.31%
2007	0.40%	0.58%	7.92%	1.27%	1.17%
2008	0.64%	1.55%	11.65%	3.87%	1.20%

Statewide Average Rate Impacts – Financing the EEU Budget (Per DPS)					
	Scenario 1	Scenario 2	Scenario 4	Scenario 5	May Study
2006	(2.12%)	(2.16%)	(1.88%)	(2.16%)	Did not calculate
2007	(1.83%)	(1.92%)	(0.83%)	(1.85%)	Did not calculate
2008	(1.52%)	(1.61%)	0.88%	(1.31%)	Did not calculate

74. No analysis was performed of the short-term rate and bill impacts of the budget amounts resulting from the July Study.

75. CVPS acknowledged that because of some differences in the way the two models were constructed, the DPS's model produced more accurate short-term rate and bill impacts.

Statewide Average Bill Impacts – Expensing the EEU Budget (Per DPS)					
	Scenario 1	Scenario 2	Scenario 4	Scenario 5	May Study
2006	0.10%	(0.25%)	1.92%	(0.25%)	0.31%
2007	0.14%	(0.10%)	5.71%	0.43%	(0.92%)
2008	(0.01%)	(0.25%)	6.99%	1.24%	(1.96%)

Statewide Average Bill Impacts – Financing the EEU Budget (Per DPS)					
	Scenario 1	Scenario 2	Scenario 4	Scenario 5	May Study
2006	(2.20%)	(2.35%)	(2.39%)	(2.35%)	(3.19%)
2007	(2.09%)	(2.59%)	(2.86%)	(2.66%)	(4.14%)
2008	(2.16%)	(3.35%)	(3.33%)	(3.81%)	(4.86%)

The information presented to us during this process reinforces our long-standing conclusion that the provision of energy efficiency services to Vermont's electricity customers is a cost-effective way of reducing Vermont's power costs below what they otherwise would be, thus tempering increases in customers' electric bills. We do realize, however, that this statewide effect is not evenly distributed among all Vermont electric ratepayers. Even though, as a whole, Vermont's electric bills will be lower because of energy efficiency programs, there may be some individual customers who experience higher electric bills.

These customers could include low-income customers who, for whatever reason, are unable to take advantage of the EEU's services. In this context, we note that Act 208 requires the Board to design a proposed electric affordability program in the form of draft legislation with the collaboration of key stakeholders. The effect of the EEU budget levels that we set today on low-income customers is an appropriate topic to raise with this collaborative, and we will do so.

We also recognize that even though energy efficiency investments reduce Vermont's electric bills below what they otherwise would be, the short-term rate impacts of acquiring this energy efficiency, if the EEU budget continues to be expensed, are real. For large users of electricity, even a small kWh and kW charge can result in a significant dollar payment. For example:

- in Fiscal Year 2005 the St. Albans Cooperative Creamery paid over $12,500 in EEC charges;[76]
- Energizer's St. Albans facility will pay over $25,000 in EEC charges in 2006 under the current EEU budget;[77] and
- the Rock-Tenn Missisquoi Mill pays over $100,000 per year in EEC charges.[78]

Several participants and some individual businesses expressed concern about the rate impacts of increasing the EEU budget. They argued that electricity rates in Vermont are high compared to other places[79] and this puts Vermont businesses that are competing in national or world-wide markets at a competitive disadvantage. These participants and businesses added that it is particularly difficult for Vermont businesses to absorb an increase in the EEC right now because several electric utilities and Vermont Gas have recently filed for rate increases ranging from 6.15 percent to 22.86 percent.

We are persuaded that while residential customers generally focus on their bills (rather than on utility rates), some businesses, particularly those considering whether to open a new facility or expand a current facility, focus on utility rates rather than on customer bills. We recognize that for those customers, any increase in rates matters, regardless of what that rate increase might mean for those customers' bills.

As 30 V.S.A. § 209(e)(14) requires, we have considered the impact on retail electric rates of programs delivered by the EEU. Our concern regarding the rate impact of increasing the EEU budget contributed to our decision regarding how quickly to phase in the increase in the EEU

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76. Letter dated May 2, 2006, from Leon J. Berthiaume, General Manager, St. Albans Cooperative Creamery, Inc., to James Volz, Chairman, and Susan Hudson, Clerk, Board.

77. E-mail dated April 20, 2006, from Don E. Goedde, Plant Manager, Energizer - St. Albans, to James Volz, Chairman, Board.

78. E-mail dated April 19, 2006, from Chris Ham-Ellis, General Manager, Rock Tenn Missisquoi Mill, to James Volz, Chairman, Board.

79. As of April 2006 (the latest data available from the Energy Information Administration), Vermont's average electric rates are above the national averages. However, we have the lowest average residential and commercial rates of any state in the Northeast (New England plus New York), and our average industrial rates are lower than those in all New England states except Maine, and only slightly higher than New York's. EIA Electric Power Monthly (July 11, 2006).

budget to the level at which the EEU could acquire all the cost-effective energy efficiency that is reasonably available. If we had the ability to mitigate this rate impact, such as by financing the energy efficiency investment in a manner similar to that in which supply-side resources are financed, we would have concluded that it would have been reasonable to increase the budget further.

Our concern regarding the rate impact of increasing the EEU budget also influenced our decision to revisit today's determination in 15 months. This will give us an opportunity to modify the budget for 2008 (either higher or lower) if circumstances change.

G. Pay-As-You-Save

Another possible way to mitigate the rate impacts of energy efficiency is to require the recipients of the energy efficiency measures to pay the full cost of those measures over time out of their electricity bill savings, as is proposed by PAYS America. It is our understanding that a program such as this is particularly effective with certain groups of customers such as municipal entities, educational institutions, and hospitals. These types of customers often have difficulty finding sufficient funds in their capital budgets to make the necessary up-front investments, and Pay-As-You-Save allows them to fund projects entirely out of their operating budgets.

There are also some challenges associated with the Pay-As-You-Save model, particularly in a small state like Vermont that has 21 electric distribution utilities. Under Pay-As-You-Save, measures are paid for out of electricity bill savings, and measures must meet a certain threshold in order to be eligible for Pay-As-You-Save treatment (typically the measure must be paid for using 3/4 of the customer's expected bill savings over 3/4 of the measure's expected lifetime). This means that the ability of a measure to be funded depends on a customer's electricity rates, and the same measure might meet the threshold for a customer located in one utility service territory, but not for a customer located in another utility service territory. Because under the Pay-As-You-Save model certified vendors market PAYS-qualified measures, provide some of the technical assistance, and perform some of the administrative work associated with the sales,

this would require these vendors to be familiar with a variety of different electric utility rates.[80] This could easily lead to vendor and customer confusion, as often happened before the creation of a statewide EEU when individual electric utilities each administered their own energy efficiency programs with different features and rebate levels.

There are additional challenges associated with using the Pay-As-You-Save model with residential customers. These include landlord-tenant issues and the administrative costs of working with smaller customers, among others.

Nevertheless, the concept of requiring customers who receive the measures to pay for as much of the cost of those measures as possible is a good one. Our understanding is that the EEU is working toward this goal by encouraging performance contracting in appropriate situations. In addition, the EEU has relationships with several financial institutions that will provide financing of both residential and business customers' energy efficiency investments. Both of these items help overcome the market barrier of lack of up-front capital investment that programs such as Pay-As-You-Save have targeted.[81]

H. Rate Design

Several participants recommended that the Board consider alternative means of achieving energy efficiency goals. Such alternative means could be another way of mitigating rate impacts associated with meeting these goals.

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80. For example, a vendor located in Morrisville could potentially have customers located in nine different electric utility service territories: Central Vermont Public Service Corporation; Green Mountain Power Corporation; Town of Hardwick Electric Department; Village of Hyde Park Electric Department; Village of Johnson Water & Light Department; Village of Morrisville Water & Light Department; Town of Stowe Electric Department; Vermont Electric Cooperative, Inc.; and Washington Electric Cooperative, Inc.

81. In general, the Board's contract with the entity serving as Efficiency Vermont provides the EEU with broad discretion regarding the type of services they provide, within certain general guidelines, as long as the EEU meets specified performance goals. However, our understanding of the Pay-As-You-Save approach, particularly the placement of charges for efficiency investments on customers' utility bills would require prior Board approval. Despite our reservations about the Pay-As-You-Save approach articulated above, we are open to considering a pilot program based on that approach, if such a proposal is filed with the Board.

For example, alternative rate designs could be considered that send appropriate price signals to customers.[82] When customers know what the next unit of electricity will cost, they can make consumption decisions accordingly. We recognize, however, that some of these alternative rate designs would require advanced metering technologies and other investments by electric utilities. When considering whether to implement such rate designs, all relevant costs and benefits would need to be taken into account.

As utilities bring proposals to change their current rate designs to the Board, we will give careful consideration to rate design changes that would encourage customers to use energy more efficiently.

I. Calculating New EEC Rates

Now that we have determined an overall EEU budget, it is necessary to establish the process for calculating new EEC rates for the remainder of 2006. The methodology for calculating the EEC rates is set forth in PSB Rule 5.300. That rule specifies the information that is necessary to calculate the EEC rates. All of the necessary data to recalculate the 2006 EEC rates has already been collected from the electric utilities and other entities. (It was used to calculate the 2006 EEC rates now in effect.)

However, there are three decisions that must still be made in order to recalculate the 2006 EEC rates: (1) what is the effective date of the new rates; (2) will the DPS's EEU monitoring and evaluation budget (which is funded out of the total EEU budget) increase as a result of the increase in the size of the program; and (3) how will the remaining increase be allocated between

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82. For example, demand rates (particularly when used with load limiters) can persuade customers to reduce their demand on a utility's system, which can lower a utility's capacity requirements. When Rochester Electric Light and Power Company instituted demand rates with load limiters for high-usage residential customers, its system peak fell by 25 percent in the first year even though its total kWh consumption for the year remained nearly the same.

Similarly, time-of-day rates can also encourage customers to shift their consumption to off-peak times of day, again lowering the utility's peak energy and capacity needs.

It is also possible to modify the structure of the EEC to encourage residential customers to use less electricity. For example, a lower-priced "first block" could be established for residential customers, which would result in an EEC rate higher than it otherwise would be for all remaining residential kWhs. (Act 208 requires the Board to consider establishing a lower-priced "first block" of electricity for residential customers, although it does not specifically mention the EEC in this context.)

Efficiency Vermont and BED (since BED delivers many of the EEU programs in its service territory and its EEU efforts are funded out of the total EEU budget).

Throughout this workshop process, we have worked toward an implementation of new EEC rates in mid-2006. However, because of the timing of the DPS's discovery of the errors in the May Study, the Board did not have sufficient information to issue updated EEU budget levels in time for the 2006 budget level to become effective with service rendered July 1. Instead, the effective date of the new 2006 budget level will be service rendered August 1, 2006 (bills rendered September 1, 2006).[83]

The DPS's EEU monitoring and evaluation budget was originally established as 3.3 percent of the total EEU budget. The Board's June 29, 2006, memorandum asked participants to file comments on this approach. No participant filed comments on this approach; however, the July Study includes annual budgets ranging between $897,000 and $1,095,878 for the combination of DPS EEU monitoring and evaluation activities, the EEU Contract Administrator, the EEU Fiscal Agent, and the EEU Fund Audit. These budgets essentially keep the DPS monitoring and evaluation budget constant, except for adjusting it for inflation. We determine that this is an appropriate method of calculating the budget for the DPS's EEU monitoring and evaluation activities. This means the DPS's EEU monitoring and evaluation budget will be:

- 2006 – $677,000
- 2007 – $692,000
- 2008 – $708,000

With respect to BED's share of the EEU budget, we determine that BED should receive the same percentage of the total EEU budget that it currently does (5.1 percent).[84] This means that BED's share of the EEU budget will be:

- 2006 – $994,500
- 2007 – $1,173,000

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83. All Vermont electric distribution utilities that filed comments in response to the Board's June 29, 2006, memorandum stated that they would be able to modify their billing systems in time to meet this implementation date if the Board issued notice of the final 2006 EEC rates on August 15, 2006. It is our intent to do so.

84. On July 6, 2006, BED filed via e-mail comments stating that it had no objection to this approach. No other participant filed comments on this approach.

- 2008 – $1,517,250

PSB Rule 5.300 provides the DPS with an opportunity to calculate each year's EEC rates, but states that if the DPS does not do so by a certain date, the Board will perform the calculation. Accordingly, if the DPS wishes to recalculate the 2006 EEC rates, it should do so on or before August 8, 2006. If we have not received the DPS's calculation by then, we will calculate the rates.

Participants who wish to file comments on the DPS's (or the Board's) calculation of the new 2006 EEC rates, must do so on or before August 11, 2006. Our goal is to issue a final order containing the new 2006 EEC rates on or before August 15, 2006.

V. CONCLUSION

For the reasons explained above, we determine that the EEU budgets for the 2006-2008 time period will be as follows:

- 2006 – $19.5 million
- 2007 – $24 million
- 2008 – $30.75 million

We will revisit the 2008 budget level in 15 months (or sooner if given statutory authority to finance, rather than expense, the EEU budget). In the meantime, we will conduct a series of workshops and meetings with participants and appropriate State government officials to discuss the policy and technical issues associated with granting the Board (or other appropriate entity) authority to finance the EEU budget.

In this Order we also make determinations regarding: (1) the DPS's EEU monitoring and evaluation budgets during that time period; (2) BED's share of the total EEU budget during that time period; and (3) the implementation date of the revised 2006 EEC rates necessary to collect the new 2006 budget amount. In addition, we set forth a schedule for recalculating the 2006 EEC rates, including providing the DPS an opportunity to recalculate the 2006 EEC rates, and allowing participants an opportunity to comment on the recalculation. Our goal is to issue notice of the new 2006 EEC rates on or before August 15, 2006.

We will provide an opportunity in August for participants to submit written comments and responses on how we should balance the three statutory objectives of limiting the need to upgrade the state's transmission and distribution infrastructure, providing the opportunity for all Vermonters to participate in efficiency programs, and the value of targeting efficiency efforts to locations, markets or customers where they may provide the greatest value.

We will raise the issue of the effect of the EEU budget levels on low-income customers with the electric affordability collaborative that we have convened in accordance with Act 208.[85]

Finally, as utilities bring proposals to change their rate designs to the Board, we will give careful consideration to rate design changes that would encourage customers to use energy more efficiently.

VI. ORDER

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that:

1. The Energy Efficiency Utility ("EEU") budgets for the 2006 – 2008 time period shall be:
   - 2006 – $19.5 million
   - 2007 – $24 million
   - 2008 – $30.75 million
2. The Board will reconsider the EEU budget level for 2008 in 15 months, or at such time as a vehicle for financing the EEU budget is established, whichever is sooner.
3. The DPS's EEU monitoring and evaluation budgets for the 2006-2008 time period shall be as follows:
   - 2006 – $677,000
   - 2007 – $692,000
   - 2008 – $708,000
4. The City of Burlington Electric Department's share of the total EEU budget for the 2006-2008 time period shall be as follows:

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85. This collaborative is open to the public. Information about the schedule for the collaborative is available on the Board's website at http://www.state.vt.us/psb/document/ElectricInitiatives/Act208/Act208Main.htm.

- 2006 – $994,500
- 2007 – $1,173,000
- 2008 – $1,517,250

5. The 2006 EEC rates shall be recalculated, effective with service rendered August 1, 2006, and bills rendered September 1, 2006, to collect the new 2006 budget amount.

6. If the DPS chooses to recalculate the 2006 EEC rates, it shall do so on or before August 8, 2006, and shall file one paper copy of the calculation with the Clerk of the Board, and circulate it electronically to the e-mail list that is attached as Appendix A to this Order. If the Board has not received the DPS's calculation by August 8, 2006, the Board will calculate the rates.

7. If participants choose to file comments on the DPS's (or the Board's) calculation of the new 2006 EEC rates, they shall do so on or before August 11, 2006. Participants shall file one paper copy of their comments with the Clerk of the Board, and circulate their comments electronically to the e-mail list that is attached as Appendix A to this Order.

8. The Board's goal is to issue a final order containing the new 2006 EEC rates on or before August 15, 2006.

9. The Board will hold the first workshop to discuss policy and technical issues associated with obtaining appropriate authority, if needed, to finance the EEU budget at 1:30 p.m. on October 18, 2006, in the Board's Third Floor Hearing Room, Chittenden Bank Building, 112 State Street, Montpelier.

10. On or before August 18, 2006, participants shall file their recommendations regarding how the Board should balance the statutory objectives of: (1) providing the opportunity for all Vermonters to participate in efficiency programs; (2) the value of targeting efficiency efforts to locations, markets or customers where they may provide the greatest value; and (3) limiting the need to upgrade the state's transmission and distribution infrastructure. On or before August 25, 2006, participants shall file their responses to other participants' recommendations. Participants shall file one paper copy of their comments and responses with the Clerk of the Board, and circulate their comments and responses electronically to the e-mail list that is attached as Appendix A to this Order.

11. The Board will raise the issue of the effect of the EEU budget levels on low-income customers with the electric affordability collaborative that we have convened in accordance with Act 208.

12. As utilities bring proposals to change their current rate designs to the Board, the Board will give careful consideration to rate design changes that would encourage customers to use energy more efficiently.

Dated at Montpelier, Vermont, this 2nd day of August, 2006.

s/James Volz)
)
) PUBLIC SERVICE
)
s/David C. Coen) BOARD
)
) OF VERMONT
s/John D. Burke)

OFFICE OF THE CLERK

FILED: August 2, 2006

ATTEST: s/Susan M. Hudson
Clerk of the Board

NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: Clerk@psb.state.vt.us)